Exhibit "B"

Part 9 of 10

Table 8-21
Sensitive Terrestrial Wildlife Species Occurring or Potentially Occurring at PTA ROI

Scientific Name	Hawaiian Name/ Common Name	Federal Status[1]	State[2]/Global Status[3]	Habitat	Date Last Observed	Likelihood of Occurrence
Invertebrates						
Euconulus (Nesoconulus) sp.cf. *gaetanoi*	-/snail	SOC	-/-	Not available	1998	C
Helicoverpa confusa	-/Hawaiian helicoverpa moth	SOC	-/G1	Not available	1998	C
Leptachatina spp. (5 species)	-/snail	SOC	-/G1	Not available	1998	C
L. lepida	-/Amastrid land snail	SOC	-/-	Not available	1998	C
Nesopupa (Infranesopupa) subcentralis	-/snail	SOC	-/-	Not available	1998	C
Nesovitrea hawaiiensis	-/snail	SOC	-/-	Not available	1998	C
Philonesia sp.	-/snail	SOC	-/-	Not available	1998	C
Rhyncogonus giffardi	-/Giffard's rhyncogonus weevil	SOC	-/G1	Includes montane dry shrublands, dry to mesic forest and woodland	1998	C
Striatura (Pesudohyalina) sp. cf. *Meniscus*	-/snail	SOC	-/-	Not available	1998	C
Striatura sp.	-/snail	SOC	-/-	Not available	1998	C
Succinea konaensis	-/snail	SOC	-/-	Not available	1998	C
Vitrina tenella	-/snail	SOC	-/-	Not available	1998	C
Birds						
Branta sandvicensis	nēnē/Hawaiian goose	E	E/G1	Cropland, pasture, herbaceous rangeland, shrub brush rangeland, mixed rangeland, evergreen forest land, nonforested wetland, bare exposed rock and mixed barren land	1999	C
Buteo solitarius	ʻio/Hawaiian hawk	E	E/G1	Cropland, hedgegrow, hardwood forest, herbaceous grassland and hardwood woodland	1997?	P
Chasiempis sandwichensis sandwichensis	ʻelepaio/-	*	-/G4	Native Hawaiian forest, hardwood woodland and forest, nonnative forest, riparian	2000	C
Hemignathus munroi	ʻakiapōlāʻau/-	E	E/G1	Mesic to wet ʻōhiʻa, koa-ʻōhiʻa, and koa-māmane forests, dry māmane and māmane-naio forests; most common in mesic koa forests and woodlands	1997?	C
H. virens virens	amakihi/-	+	-/G3	Humid ʻōhiʻa forest, drier mamane-naio forest, subalpine scrub; at higher elevations and also in lowland mixed native-exotic forest	2000	C
Himatone sanguinea	ʻapanane/-	+	-/G4	Hardwood forest, native and mixed native/nonnative forests in higher elevations	2000	C
Loxoiides bailleui	palila/-	E	E /G1	Māmane and māmane/naio forests	2000	C

Table 8-21
Sensitive Terrestrial Wildlife Species Occurring or Potentially Occurring at PTA ROI *(continued)*

Species *(Scientific Name)*	Hawaiian Name/ Common Name	Federal Status[1]	State[2]/Global Status[3]	Habitat	Date Last Observed	Likelihood of Occurrence
Myadestes obscurus	ʻōmaʻo/-	+	-/G4	Primarily inhabits mesic and wet native ʻōhiʻa and mixed ʻōhiʻa and koa forests above 1000 meters elevation; also found in mixed tree fern ʻōhiʻa habitat in Hawaiʻi Volcanoes National Park, ʻōhiʻa scrub on lava flows, kipukas, and treeless alpine scrub	Unknown?	P
Pterodromoa phaeopygia sandwichensis	ʻuaʻu/Hawaiian dark-rumped petrel	E	E/G1	Open ocean; breeds along barren mountain slopes	1996?	P
Vestiaria coccinea	ʻiʻiwi/Hawaiian honeycreeper	+	-/G4	Native forests especially ʻōhiʻa *(Metrosideros)* forest	1999?	P
Mammals						
Lasiurus cinereus semotus	-/Hawaiian hoary bat	E	E/G5T2	Bare rock, cliff, hardwood forest, grassland/herbaceous, hardwood woodland, and riparian habitats	1996	C

Sources: USARHAW and 25th ID[L] 2001b; HDLNR 2002a; R. M. Towill Corp. 1997b; USGS 2001b; NatureServe 2001; Virginia Tech 1998

Notes:
*The state endangered listing refers only to the populations on Oʻahu, Lanai, and Molokaʻi.

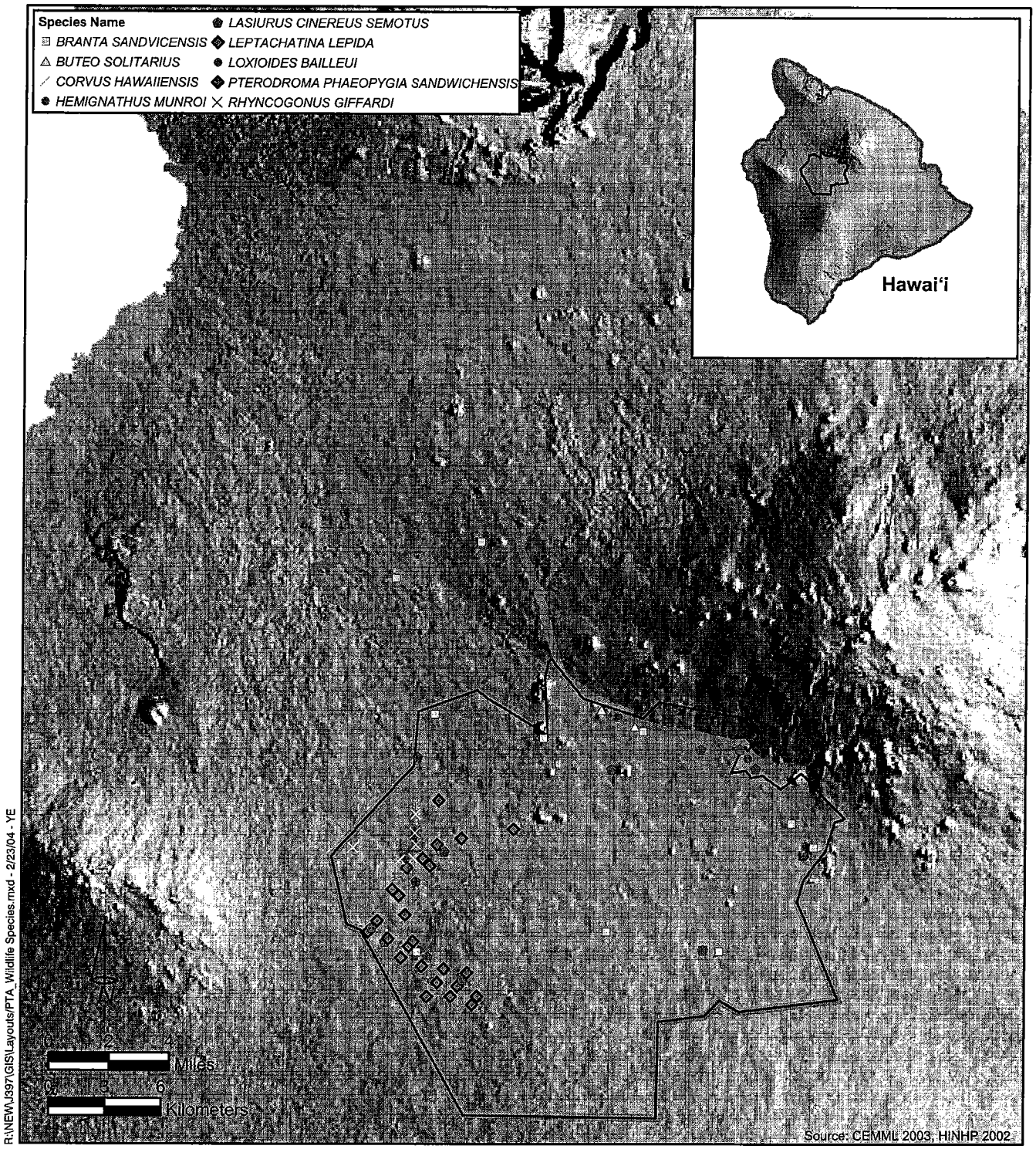
Status:

[1]Federal:
E = Endangered
SOC = Species of concern
+ = Birds of Conservation Concern

[3]Heritage Global Rank:
G1 = Species critically imperiled globally (typically 1-5 current occurrences)
G3 = Species with restricted range, rare globally (typically 20-100 current occurrences)
G4 = Species apparently globally secure
G5 = Species demonstrably globally secure
T1 = Subspecies critically imperiled globally (typically 1-5 current occurrences)
T2 = Subspecies imperiled globally (typically 6-10 occurrences)

[2]State
E = Listed as endangered
/-/ = No Status

Likelihood of occurrence on the project site
C = Confirmed
P = Potentially may occur
U = Unlikely to occur



Of the sensitive wildlife species reordered within the PTA ROI in recent history, six are federally endangered.

Sensitive Wildlife Species in the Pōhakuloa Training Area Terrestrial Biological Region of Influence

Island of Hawai'i, Hawai'i

Legend

Pōhakuloa Training Area Boundary

Region of Influence

Figure 8-35

There is one Federally listed endangered seal, the monk seal *(Monachus schauinslandi).* The monk seal has critical habitat in the northwestern portion of the Hawaiian Island chain, outside of the PTA ROI.

There are five listed sea turtles that could occur in the Pacific tropical waters of Hawai'I and could potentially occur in the PTA ROI. The most likely of these are the green sea turtle *(Chelonia mydas),* which is federally threatened, and the leatherback sea turtle *(Dermochelys coriacea),* which is federally endangered. The green sea turtle is the most likely to occur in the coastal portions of the PTA ROI. The leatherback turtle is expected to occur most commonly in offshore waters. Adult leatherbacks are commonly sighted in the waters off the outer Hawaiian Islands (NOAA Fisheries 2000z). The other species, i.e. the loggerhead *(Caretta caretta gigas),* hawksbill *(Eretmochelys imbricata),* and olive ridley *(Lepidochelys olivacea),* are less common but have the potential to occur. Hawksbills and green sea turtles nest annually on Hawaiian beaches (ONR 2000) though no nests for either species have been documented in the PTA ROI. The hawksbill species is considered uncommon in Hawaiian waters, but does have nesting sites on Hawai'i and Moloka'i (NOAA Fisheries 2000y) are distant from the ROI. Loggerheads and olive ridleys are known to occur in Hawaiian waters as they occur as bycatch in the longline fishery, but they are predominantly pelagic species. Loggerheads are known to spend 40 percent of their time at the surface, and olive ridleys are only at the surface 20 percent of the time and tend to be found in shallower waters than loggerheads (Polovina et al. 2000). Olive ridleys are the most abundant sea turtles in the world (Polovina et al. 2000) though they are less common in Hawaiian waters. Most records of olive ridley are from entanglements and strandings (NOAA Fisheries 2000aa).

The green sea turtle is expected to be the most common near the coastlines, while the other species would more likely be in the offshore waters along the transit lines for the vessels traveling between Oahu and the island of Hawaii.

Of these ESA-listed marine wildlife, the most likely occurrences in the ROI would be for the humpback whale, the sperm whale, the monk seal, and both the green and leatherback sea turtle. Table 8-19 lists the likelihood of occurrence of these species within the project area and associated habitat and regulatory information. The natural history of these species, as well as specific documented locations either in or near the PTA ROI (if known), is described in Appendix I-1.

Humpback Whale (FE/MMPA)

The waters off the coasts of the Hawaiian Islands are known for their seasonal population of humpback whales, which are also the most abundant marine mammal throughout the Hawaiian waters (Mobley et al. 2001). The Hawaiian Islands serve as an important breeding ground for this species (Calambokidis et al. 1998). The humpback whale is the only one of the five endangered baleen whales potentially occurring in Hawaiian waters that is known to be present in reasonably large numbers. The International Whaling Commission and NOAA Fisheries consider the Hawaiian population of humpbacks to be a separate stock (NOAA Fisheries 2000a). Humpback whales are found throughout the island chain and are most abundant in coastal waters of the main Hawaiian Islands, including Hawai'i and O'ahu, from November through April, with peak abundance occurring from late February through mid-

March (Baker and Herman 1981). Approximately two-thirds of the entire North Pacific humpback whale population (approximately 4,000 to 5,000 whales) migrate to Hawaiian waters to breed, calve, and nurse (NOAA Fisheries 2000a). These whales are generally found in shallow waters shoreward of the 600-foot (183-meter) depth contour (ONR 2000).

Humpback whale mothers and calves prefer the calmer shallower waters often found on the leeward sides of the islands (Smultea 1992), and they prefer very shallow water less than 60 feet (18 meters) (ONR 2000; Smultea 1992). Some results suggest that habitat use patterns of females and calves in nearshore areas may decrease as a result of increasing vessel traffic and human activities (ONR 2000). Humpback whales are vulnerable to human disturbance in Hawaiian waters and possibly to vessel strikes. Hawai'i regulations prohibit boats from approaching within 100 yards (91 meters) of adult whales and within 300 yards (274 meters) of mother/calf pairs. Humpback whales (of varying pod sizes and types, including mother and calf pods) are commonly sighted off the O'ahu coast and are confirmed in project area waters, though with unknown frequency, from January through April (Pickering 2003; Clark and Tyack 1998).

Monk Seal (E/MMPA,D)

The monk seal is the only pinniped (seal species) known to occur in the Hawaiian archipelago, and it is endemic. This species may occasionally occur in the waters or shore of the ROI. However, it is more common in the northwest island chain. Incidental transients are known at all of the main seven islands, and two individuals are known from the North Kohala area of the island of Hawaii. There is a small uncounted population on the island of Ni'ihau (NOAA Fisheries 2000w). The species was designated as depleted under the MMPA in 1976, following a large decline in animal counts from the late 1950s and mid 1970s. The monk seal was also listed as endangered under the ESA in 1976. In 1988, NOAA Fisheries designated critical habitat for the Hawaiian monk seal but this area is quite distant from the ROI. It is designated in 10 areas of the northwestern Hawaiian Islands, extending from shore to a distance offshore to 20 fathoms (180 feet, or 55 meters) of depth. The species is managed as one stock, though each island may in fact have its own subpopulations (NOAA Fisheries 2000w). Virtually nothing is known about its distribution and movement patterns when it is at sea. Current estimates indicate that the monk seal population is declining and is believed to include approximately 1,000 animals. Hawaiian monk seals breed primarily at Laysan Island, Lisianski Island, and Pearl and Hermes Reefs but also are known to use the Midway Islands, among other northwest Hawaiian Islands (NOAA Fisheries 2000w).

Green sea turtle (FT)

The green sea turtle is considered the most abundant turtle in Hawaiian waters (Zug et al. 2002; ONR 2000; NOAA Fisheries 2000x-z, 2000aa, 2000bb). The Hawaiian population of nesting green sea turtle comprise a distinct genetic unit (Zug et al. 2002). Except during their post-hatching pelagic phase, this species spends the majority of time in coastal waters, shallow bays, and nearshore areas where foraging is optimal (Brill et al. 1994; Zug et al. 2002). Juveniles and subadult green turtles are especially abundant in the nearshore areas. These turtles have nested on all of the seven main islands (Dollar 1999). The most accurate abundance estimates for adult female green turtles which nest annually on Hawaiian beaches are from 450 to 475 animals, with the majority of reproduction taking place at the French

Frigate Shoals (Balazs 1980; NOAA Fisheries 2000x, 2000y). Submergence intervals vary by behavior. When the animals are resting, they have regular, long submergence intervals. When feeding, submergence interlace are short and irregular (Brill et al. 1994). In Hawaii, 40 – 60 percent of immature green sea turtles suffer from fibropapillomatosis, a disease that causes tumor growth (Work et al. 2003). Studies are currently ongoing to assess the impacts of these tumors on the animal's behavior.

Green sea turtles are expected to occur especially in the coastal portions of the ROI or on beach habitats. This species is known to feed on marine plants that occur in the ROI and in the nearshore areas. The PTA ROI does have sea turtle foraging and resting areas. Green sea turtles have been shown from some Hawaiian areas to remain within a small portion of a habitat area if foraging and rest habitat is optimal there, and to have short submergence intervals (Brill et al. 1994). During the breeding season, adult green sea turtles undertake long-distance oceanic migrations from feeding areas throughout the Hawaiian archipelago to nesting beaches at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl Reef and Hermes Reef, Cure Atoll, and Midway Island. It is hypothesized that green turtles in the Hawaiian archipelago could be a genetically distinct subpopulation (NOAA Fisheries 2000x). The majority (90 percent) of green turtle nesting in the Hawaiian Islands occurs far distance from the ROI at the French Frigate Shoals, the portion of the islands that are 800 miles (1,482 kilometers) northwest of the main Hawaiian Islands, consisting of a string of 11 small island regions.

Leatherback sea turtle (FE)

Leatherbacks do not nest regularly or in great numbers in the Hawaiian Islands (NOAA Fisheries 2000x, 2000aa). Adult leatherbacks are commonly sighted in the Pacific Ocean near the Hawaiian archipelago, primarily over deep oceanic waters. Leatherbacks could occur equally as frequently off any of the main seven islands, but they are often sighted off the north shores of both O'ahu and the island of Hawai'i (NOAA Fisheries 2000z; ONR 2000). They are considered to have the potential to occur in ROI waters (NOAA Fisheries 2000z).

Sensitive Habitats

Critical Habitat

Critical habitat designation ensures that any USFWS authorized action on that land is not likely to result in destruction or adverse modification of that habitat. Critical habitat was designated for 41 plants on the Island on Hawaii in 2003.

Army lands were excluded from critical habitat based upon a rationale that recognizes and emphasizes the essential contribution that Army-led natural resource conservation actions play in the recovery of threatened and endangered species. These contributions include ongoing and proposed management actions specified in Integrated Natural Resource Management Plans (INRMPs) and other natural resource conservation programs. The INRMPs for Army installations on the islands of Oahu and Hawaii complement and support recovery goals through monitoring, invasive species control, and endangered species management, thereby providing conservation benefits to listed species.

There are presently four noncontiguous specially managed vegetation areas on PTA. These areas were designated as such because of their botanical composition or rare species potential habitat. Areas additional to these are fenced units protecting individuals or populations of rare plants. In addition, there are Botanically Significant Areas within the Region of Influence (ROI) of the proposed action outside of Army installation boundaries in the West PTA Acquisition Area (Palmer 2003).

Palila critical habitat was first designated in 1977 when the USFWS dedicated 60,187 acres (24,357 hectares) for their protection (USFWS 1977a and 1977b). There are 2,569 acres (1,040 hectares) of this habitat are in two noncontiguous areas on PTA (Figure 8-36). The vegetation of critical habitat area A, adjacent to the BAAF, is mostly *Dodonaea* shrubland, with *Eragrosits atropoides,* māmane *(Sophora chrysophylla),* and naio *(Myoporium sandwicense).* There are no firing points in this area. Critical habitat area B is mainly māmane and naio open forest, *sophora myoporum* shrubland with grass understory, and contains 11 firing points (USARHAW and 25th ID[L] 2001b). There is no plant critical habitat designated within the ROI.

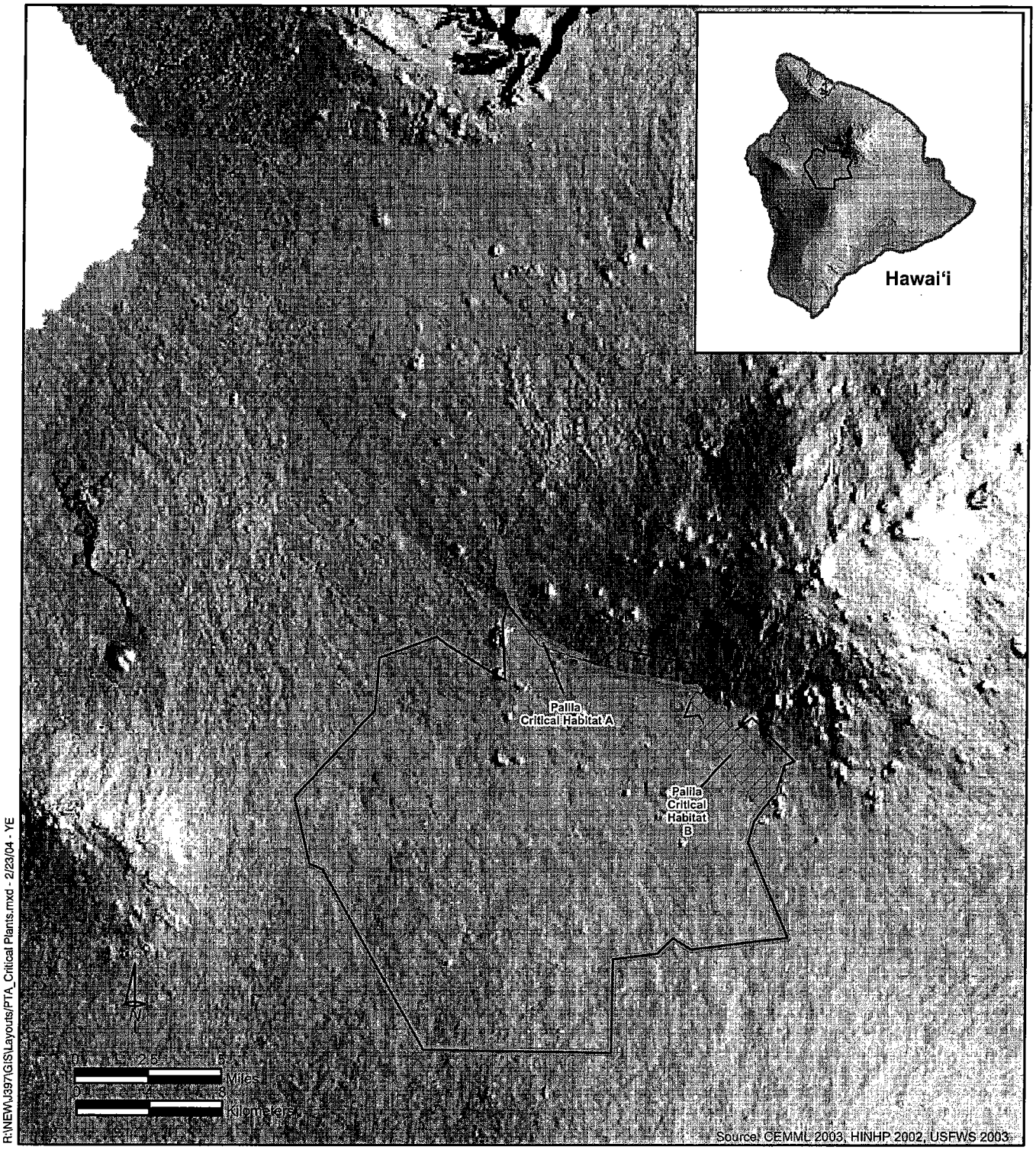
Hawaiian Islands Humpback whale National Marine Sanctuary

The Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) was designated under the National Marine Sanctuaries Act (16 U.S.C. 1431 et seq., P.L. 106-513). This act was enacted to designate and manage areas of the marine environment with special national significance as National Marine Sanctuaries. The primary objective of this law is to protect marine resources. The Act also directs the Secretary of Commerce to facilitate all public and private uses of those resources that are compatible with the primary objective of resource protection. Sanctuaries are managed according to site-specific Management Plans prepared by the NOAA Fisheries. HIHWNMS waters are composed of five separate areas abutting six of the major islands. Designated sanctuary waters encompass the entire western portion of the island of Hawai'i and include waters just outside and surrounding Kawaihae Harbor (see Figure 3-13).

Biologically Significant Areas

The Hawai'i Natural Heritage Program has defined three types of BSAs for managing important natural communities (Figure 8-37). Areas outside of PTA proper but within the ROI, such as PTA Trail and Kawaihae Harbor, have not been evaluated for BSA status.

BSA1 contains a high density of federally listed endangered, proposed endangered, or candidate species; approximately 11,618 acres (4,702 hectares) within PTA proper is designated as BSA1. This includes a portion of Kipuka Kalamauna endangered plants habitat and Pu'u Kapele, which is the site of a large population of *Haplostachys haplostachya* (USARHAW and 25th ID[L] 2001b).



There are 2,569 acres of Palila critical habitat within the Pōhakuloa Training Area Region of Influence.

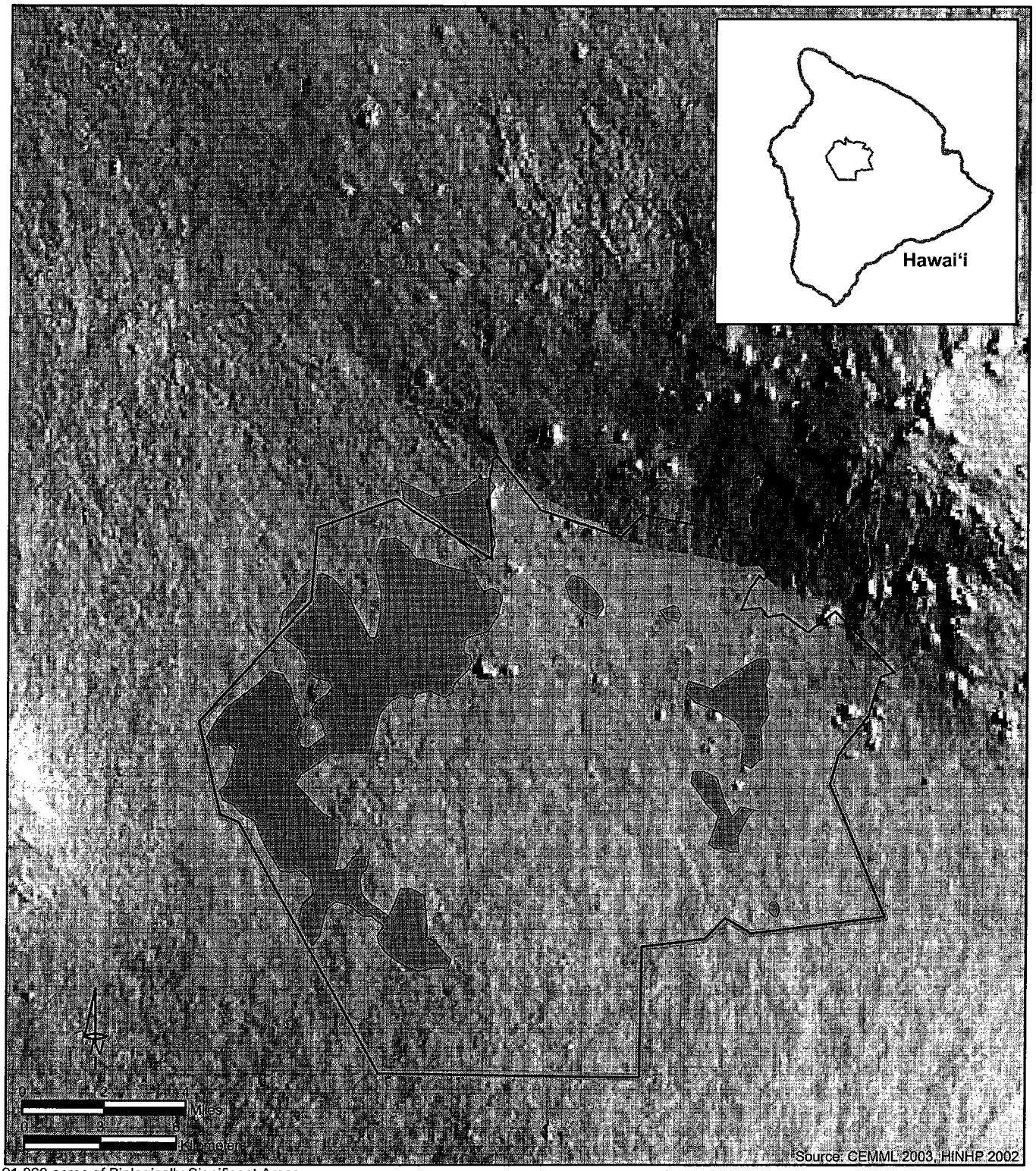
Legend

- Pōhakuloa Training Area Boundary
- Region of Influence
- Federally Designated Palila Critical Habitat

Federally Designated Palila Critical Habitat in the Pōhakuloa Training Area Terrestrial Biological Region of Influence

Island of Hawai'i, Hawai'i

Figure 8-36



21,860 acres of Biologically Significant Areas occur within the Pōhakuloa Training Area Terrestial Region of Influence

Legend

- Pōhakuloa Training Area Boundary
- Region of Influence
- Biologically Significant Areas

Biologically Significant Areas found in the Pōhakuloa Training Area Terrestial Region of Influence

Island of Hawai'i, Hawai'i

Figure 8-37